Support for the Cardiac Emergency Response Drill Bill (HB 4272):

As a pediatric cardiologist practicing in Lansing for 20 years I have been on the receiving end of childhood sudden cardiac arrest patients while working at nearby Sparrow Hospital. I am also here representing the U-M Congenital Heart Center in Ann Arbor in support of this bill. I'd like to mention two cases that may help illustrate why this bill is vitally necessary.

Two years ago a HS student collapsed a short distance east of here while sitting at his desk. His best friend, an Eagle Scout, was sitting nearby and stepped up to start CPR. School staff stopped him, saying, "No, wait until EMS gets here." When EMS arrived their AED showed ventricular fibrillation. The device shocked him multiple times and a normal rhythm was restored, but by then he was unfortunately neurologically devastated. He underwent many medical tests but no explanation for the event was found. The next week I called the school superintendent. It was late in the school year. I explained that I wasn't on a fact-finding mission and offered to attend a school in-service in the fall. I said we could discuss the Good Samaritan law with his staff then and why a lay person won't get sued for doing something. Perhaps the next time, I thought, they would apply the AED in under 5 minutes and know that standing around doesn't save a life. He replied that everyone there was devastated and he was dealing with the fallout. I never heard from him, so have no way of knowing if anything changed.

Last fall an Ovid-Elsie student collapsed during football practice. Unlike the first case, he had 3 things in his favor: 1) His father was there, watching his sister's cross-country meet. 2) His father works in the prison system where training, sudden cardiac arrest drills and AED maintenance are the routine. His father immediately yelled for an AED. 3) The AED was maintained and accessible. The athletic director ran inside the school to retrieve it while coaches administered CPR. It turns out that years before a parent had petitioned the school board and with its approval applied for a grant to acquire AEDs for the school. All this came together when for no apparent reason he collapsed on the field.

Unlike in the first case, the AED shock for his ventricular fibrillation was applied in under 5 minutes. He was awake and talking while riding in the ambulance to Sparrow Hospital. He later passed all our cardiac testing. Nothing turned up. But the AED strips demonstrated the lethal arrhythmia that prompted the automated shock that saved him. His success story is described in a Lansing State Journal article (below); we felt it was important to get the word out and he and his family graciously agreed to be featured. As the story states, since the year 2000 "at least 50 Michigan students have died because of sudden cardiac arrest and related causes, which makes his comeback extraordinary." Overall, Michigan has about 300 sudden cardiac deaths a year in those under 40. Thanks to a cross-country meet, our prison system and the foresight of an Ovid-Elsie parent he wasn't added to those statistics.

I'd like to think that we as physicians could do better screening to identify all those at risk. But as these cases illustrate, all the screening in the world won't identify many healthy-appearing people who are at risk. Being prepared for the student or adult who collapses from sudden cardiac arrest on school grounds is imperative. Preventing death and neurological devastation is the goal. Why now? It has become more straightforward than ever - thanks to newer and cheaper AED models and more streamlined training, courtesy of video and simulation technology. Our schools are where these life-saving advancements will pay off, eventually reaching far beyond school borders.

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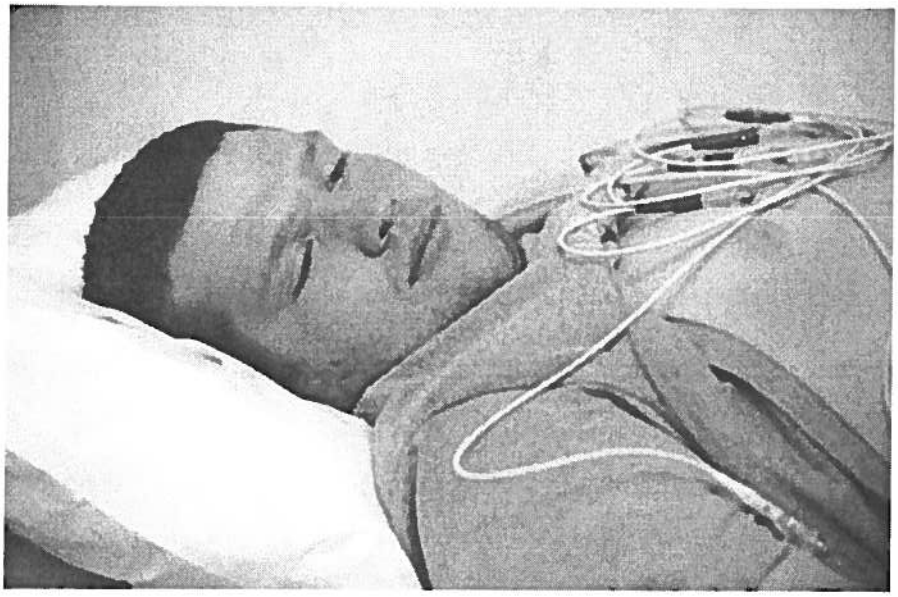
Michigan schools urged to test their readiness to respond to cardiac arrest during AED/CPR Drill Week

Lansing area football player survived sudden cardiac arrest after CPR and AED use

ANN ARBOR, Mich. – It wasn't part of a drill when high school sophomore Chris Fowler fell to one knee Oct. 9 during football practice at Lansing-area Ovid-Elsie High School.



His coach placed a hand on his shoulder just before the 16-year-old collapsed.

Fowler's heart stopped beating, and what happened next is what all Michigan schools should be prepared to do for those who suffer sudden cardiac arrest -- on or off the playing field.

"It wasn't hot, he wasn't exerting himself. My daughter simply said 'Chris fell,' " explained his mother Amy Fowler. "His coaches started to perform CPR, someone called 911, and the athletic director, driving a golf cart, got an AED from inside the school building."

An AED, short for automated electronic defibrillator, is an easy-to-use device that can shock the heart into a normal rhythm. During CPR/AED Drill Week, Nov. 5-9, and Feb. 4-8, 2013, schools are encouraged to practice their readiness to respond to a cardiac emergency.

"Seemingly healthy students can suffer cardiac arrest," says Monica Goble, M.D., a Lansing area University of Michigan Health System pediatric cardiologist. "Being ready to help with CPR and AED use can make a difference in preventing major brain damage and saving lives."

CPR provides blood flow to the heart and brain and increases the likelihood that a shock delivered by an AED will get the heart beating again. The devices only work if they detect an abnormal or no heart rhythm.

Sudden cardiac death claims the lives of more than 300 Michigan children and adults under age 40 each year, according to the state health department.

Since December 1999, at least 51 Michigan students have died because of sudden cardiac arrest and related causes, which makes Chris' comeback extraordinary.

"I'm thankful they all knew what to do," says Amy Fowler, who along with her husband David Fowler, a corrections officer trained in CPR, hopes to raise awareness about sudden cardiac arrest at schools.

Their son was taken to Sparrow Hospital in Lansing and then transferred to the University of Michigan's C.S. Mott Children's Hospital Congenital Heart Center in Ann Arbor, where doctors implanted him with a heart device. He's doing well although his football season ended early.

"Life's not over for him," the mother says of her active teenager. "He's very smart, has friends who are supporting him. He's getting more serious about golf."

U-M experts support having AEDs available in schools and the training of coaches and other school personnel on use and maintenance of the devices. Yearly training in basic life support or CPR for coaches and trainers can help them respond as quickly as possible in an emergency.

Emergency response training programs have the added benefit of not only improving a school's ability to respond to an emergency that occurs on the sports field but to any emergencies that occur on school property.

The Troy, Mich.-based Gillary Foundation, a non-profit that works to ensure every Michigan high school has at least one AED and staff members who are trained in CPR and AED use, provided an AED to Ovid-Elsie High School.

"Maintenance and accessibility are important," says Goble, the pediatric specialist. "It not enough to have these devices in the school building. People have to know how to use them, they remain charged and can easily be reached, even during after-school events."

Resources are available to learn more about sudden cardiac arrest preparedness:

Sudden Cardiac Death of the Young Surveillance and Prevention Project The Michigan Department of Community Health has gathered information about the burden and impact of sudden cardiac death from genetics to prevention.

Protecting Students and Student-Athletes from Sudden Cardiac Arrest The University of Michigan Health System provide information on the best course of action to combat sudden cardiac arrest. The Web site includes an educational video series sponsored by Mott Children's Hospital and the U-M Cardiovascular Center on identifying students at risk for SCA and how to respond to cardiac arrest.